

CLAIMS

5           The embodiments of the invention in which an exclusive property or privilege is claimed are defined as follows:

10

1. A stabilized scintillation detector, comprising:
  - (a) an LED that periodically produces a light pulse;
  - (b) a beam splitter that impinges some of said light pulse on a photodetector and on a photomultiplier;
  - (c) a scintillator that receives radiation and is coupled to said photomultiplier; and
  - (d) a control unit that receives signals from said photodetector and said photomultiplier representative of said light pulse received by said photodetector and said photomultiplier and receives a signal representative of temperature of said scintillator and outputs, in part, a signal to said photomultiplier to stabilize said photomultiplier.

15

20

25

2. A method of using a scintillation detector, comprising:
  - (a) periodically producing a light pulse;
  - (b) impinging some of said light pulse on a photodetector and on a photomultiplier;
  - (c) using a scintillator to receive radiation, said scintillator being to said photomultiplier; and
  - (d) receiving signals from said photodetector and said photomultiplier representative of said light pulse received by said photodetector and said photomultiplier and receiving a signal representative of temperature of said scintillator and outputting, in part, a signal to said photomultiplier to stabilize said photomultiplier.